

In the Claims:

1. (currently amended) A device for transdermal administration of active substances comprising a back layer and an active substance-containing reservoir connected to said back layer, wherein said device has a skin-facing contact surface on a side facing the skin, said skin-facing contact surface comprising a plurality of needle-shaped microprotrusions for penetrating into the skin and having a longitudinal contour having at least one undercut for rendering extraction of the plurality of protrusions from the skin more difficult and for fixing the device on the skin, wherein said device further comprises an adhesive polymer matrix constituting said active substance-containing reservoir on the skin side arranged coextensive with the plane of the plurality of microprotrusions, and wherein said plurality of microprotrusions are helically configured and rotatably arranged to facilitate penetration into the skin and to affect anchorage in the skin by applying a rotating movement onto said plurality of microprotrusions, and wherein the microprotrusions comprise a diffusible material for enabling the diffusion of the active substance(s) from the reservoir through the microprotrusions into the skin.
2. (canceled)
3. (canceled)
4. (previously presented) The device according to claim 1, wherein micromechanical actuators cause the rotating movement of said rotatable microprotrusions.
5. (previously presented) The device according to claim 1, wherein at least two of said microprotrusions are fixed in the active substance-containing reservoir.
6. (previously presented) The device according to claim 1, wherein at least two of said

microprotrusions are connected with the back layer.

7. (previously presented) The device according to claim 1, wherein at least two of said microprotrusions are hollow needles.

8. (canceled)

9. (previously presented) The device according to claim 1, wherein the microprotrusions protrude from the plane of the polymer matrix layer by less than 300 μm on average.

10. (previously presented) The device according to claim 9, wherein the adhesive polymer matrix also constitutes the active substance reservoir and contains at least one active substance, optionally in combination with at least one auxiliary agent.

11. (previously presented) The device according to claim 1, wherein said device contains at least one active substance which is selected from the group consisting of peptides, proteins, oligonucleotides and polynucleotides.

12. (previously presented) The device according to claim 1, wherein said device contains at least one vaccine selected from the group consisting of bacteria, viruses, bacterial toxoids, oligonucleotides, polynucleotides and genetically engineered antigens.

13. (withdrawn) A use of a device according to claim 1 for transdermal administration of active substances or vaccines to a human or animal body.

14. (withdrawn) The use according to claim 13, wherein the active substances or vaccines are selected from the group consisting of peptides, proteins, oligonucleotides, polynucleotides, bacteria, viruses, inactivated viruses, bacterial toxoids, oligonucleotides, polynucleotides and genetically engineered antigens.